

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023132**Date Inspected:** 23-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in the Bay 10:

FCAW welding of weld joints BK009A3-001-104~ 106 located on PCMK OBG bike path. Welder was identified as 054069. QC was identified as ZPMC CWI Yu Dong Ping (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Sun Zi Wang (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2232-ESAB and WPS-B-T-2233-ESAB as verbally identified by QCA1.

SMAW welding of weld joints X3305K-017-001, 002 located on PCMK OBG splice plate assembly. Welder was identified as 040581. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b as verbally identified by QCA1.

SMAW welding of weld joint X3305K-014-001, 002 located on PCMK OBG splice plate assembly. Welder was identified as 052930. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b as verbally identified by QCA1.

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Heat straightening of BK014A2-001-013~21 located on PCMK OBG bike path. QC was identified as ZPMC QC1.

Assisting QC1 at this location and appearing to be monitoring the heat straightening operation and recording data was QCA1, who was not a CWI. Heat treatment variables recorded by QCA1 appeared to comply with ZPMC document HSR1(B)-10313 as presented to this QA Inspector and verbally identified by QCA1. See photo below of ZPMC workers checking the straightness of the bottom plate of BK014.

### Bay 11

This QA Inspector randomly observed the following work in progress in the Bay 11:

No welding related work was being performed. However, ZPMC workers lifted east tower, lift 6 away from the assembly of the four lift 6's, rotated it while suspended, and positioned it horizontally on stanchions. See photos below of East tower, lift 6 being lifted and rotated to a horizontal position using one overhead crane with two hooks.

### OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of temporary alignment plates across the 13BW/13CW transverse joint, deck plates located on PCMK OBG Segments 13BW/13CW. Welder was identified as 204730. QC was identified as ZPMC CWI Li Yang (QC2). Weld variables recorded by QC2 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QC2.

SMAW welding of temporary alignment plates across the 13AW/13BW transverse joint, bottom plates located on PCMK OBG Segments 13AW/13BW. Welder was identified as 067829. QC was identified as ABF CWI Ji Cai Fang (QC3). Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Wang Zhu (QCA3), who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2114-FCM-1 as verbally identified by QCA3.

SMAW welding of temporary alignment plates at the 13AE/CB18 bolting splice plate, panel point 119+1500 located on PCMK OBG Segment 13AE. Welder was identified as 049769. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2113-FCM-1 and WPS-B-P-2114-FCM-1 as verbally identified by QCA3.

FCAW welding of temporary alignment plates at the 13AW/13BW transverse joint, deck plates located outside PCMK OBG Segments 13AW/13BW. Welders were identified as 204730, 207583. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA3.

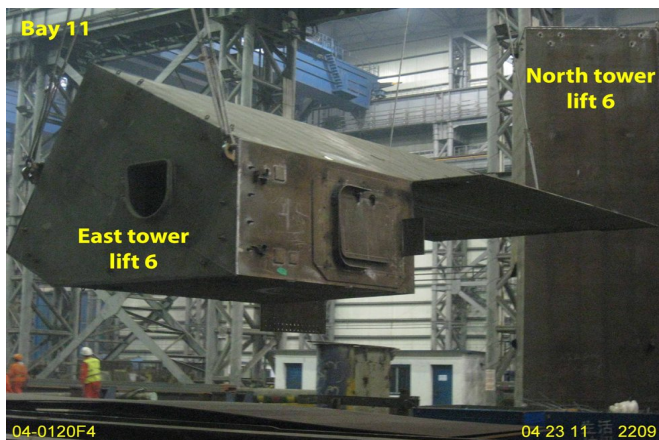
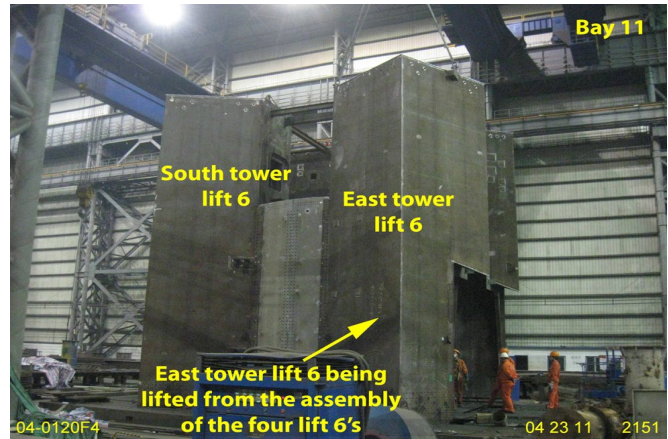
SMAW welding of temporary alignment plates across the 13AW/13BW transverse joint, bottom plates located on PCMK OBG Segments 13AW/13BW. Welders were identified as 067942, 205098. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was

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QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2114-FCM-1 as verbally identified by QCA3.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

As noted above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 15000026784, who represents the Office of Structural Materials for your project.

**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Riley, Ken

QA Reviewer